

REMARKS

This communication is in response the Action of June 14, 2005. In that Action, claims 1 through 21 were rejected and claims 22 through 73 were withdrawn from further consideration in being drawn to a non-elected invention following a telephonic provisional election by the applicants' attorney on June 7, 2005 to prosecute claims 1 through 21 in the Examiner's designation of invention I, species A. This provisional election is hereby confirmed by the applicants. The applicants have amended claims 1, 22, 24, 25, 26, 29, 30, 45 and 46 to correct inadvertent errors therein.

The applicants' attorney telephoned the Examiner on July 7, 2005 to request a supplemental Notice of References Cited listing the references relied upon by the Examiner which did not appear in the Notice of References Cited supplied with the Action. The applicants' attorney has now received this supplement.

The provisional election confirmed above was made in connection with a restriction requirement that the Examiner has now put in writing in the Action. The traverse by the applicants' is based on all of the claims pending, although patentably distinct, being related to one another in all involving ferromagnetic thin-film based digital memories with bit structures therein having magnetic material in the structures thereof. A complete search would seemingly require all of the cited classifications to be searched thereby leaving the restriction requirement unsupported.

The Examiner continues by objecting to claims 4 and 5, and the claims depending thereon, under 37 C.F.R. 1.75 as being in improper dependent form because of phrasing therein not matching antecedents therefor. Claim 1 is also objected to for use of a phrase therein requiring an antecedent basis that has not been provided. The applicants believe that the above amendment has overcome these objections.

The Examiner then rejects claims 1 through 21 under 35 U.S.C. 103 as being obvious in face of U.S. Patent 6,704,220 to Leuschner taken in view of U.S. Patent 6,724,674 to Abraham et al. The Examiner appears to contend that the bit structures of the Leuschner reference could be

modified by adding the separate heat dissipating structures of the Abraham reference bit structures thereto to thereby meet claim 1. The applicants must respectfully disagree with this contention.

Claim 1 of the present application requires that there be a spacer material separating the recited bit structures, and that this spacer material also be located between each of a plurality of heat dissipation structures (commonly connected to an electrical conductor) and corresponding ones of those bit structures. This correspondence is established in the requiring of the heat dissipation structure being capable of causing substantial heating of the bit structure corresponding thereto without significantly raising the temperature of adjacent bit structures, i.e. the heat dissipation structure must correspond to the bit structure nearest thereto.

The Leuschner reference device has silicon nitride material 36 disposed between memory cells therein but has no separate heat dissipating structures separated from the memory cells by such silicon nitride. The Abraham reference device discloses heating element 56 separated from the nearest storage cell 50 therein by just conductive metal output terminal 54. The metal in output terminal 54 clearly cannot be substituted for silicon nitride spacer material 36 of the Leuschner reference without shorting together all of the memory cells in the Leuschner reference device thereby rendering the device inoperative.

Hence, the spacer material in the Abraham reference device is absolutely incompatible with the spacer material in the Leuschner reference device thereby leaving no suitable modification of the one by the other to meet the requirements of claim 1 of the present application. In these circumstances, the applicants respectfully submit that claim 1, and therefore the claims dependent thereon, are allowable over the Leuschner and Abraham references taken either together or alone.

In view of the foregoing, the applicants respectfully request the Examiner reconsider his rejection of the claims as amended, and further request these now be allowed as amended.

The Commissioner is hereby authorized to charge any additional fees associated with

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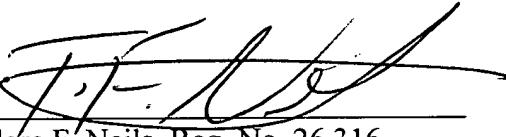
this paper or credit any overpayment to Deposit Account 11-0982.

Please direct any communication regarding this application to Theodore F. Neils at (612) 339-1863.

Respectfully submitted,

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Date: 7/26/05

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